



October 7, 2011

Harinder Singh
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

REF: 2011 Rulemaking on Appliance Efficiency Regulations (Docket # 11-AAER-1)

Dear Mr. Singh:

The Information Technology Industry Council (ITI) is the premier voice, advocate and thought leader for the information and communications technology (ICT) industry, representing the leading global innovators in ICT hardware, software and services. We welcome the opportunity to comment on this important undertaking by California Energy Commission (CEC).

The ICT industry is committed to advancing policies and practices that help drive sustainable economic growth across every sector of our nation's economy through the effective use of ICT-enabled energy efficiency and clean energy innovation. Our technology is revolutionizing how businesses, consumers and governments decrease their carbon footprint worldwide through smart homes, smart buildings and smart grids. For every one kilowatt-hour (kWh) of electricity used by ICT, an estimated of 10 kWhs are saved in the overall economy, a significant return on the investment. Moreover, the use of smart technologies could reduce U.S. CO₂ emissions by as much as 22 percent by 2020 – a cost savings of \$240 billion. Globally, the effective use of ICT has the potential of reducing CO₂ by as much as 15 percent.

To achieve these outcomes, ICT manufacturers need a policy environment that encourages innovation by providing flexibility to develop solutions that achieve essential environmental objectives while also addressing the considerable demands of a vibrant and competitive marketplace. It is with this in mind that we offer the attached comments and recommendations for your consideration. The following is a summary of the key points and recommendations:

- For the last two decades, innovation has driven massive energy efficiencies both in ICT products and via ICT-enabled efficiency transformations throughout the U.S. economy.

- Such innovation has occurred without government regulation, and is not dependent on regulation to sustain its progress.
 - In California, ICT will provide the enabling technology to support the State's efforts to achieve its energy efficiency and climate goals, including the zero net energy goals for 2030.
- The U.S. government encourages and supports such innovation through: (1) the voluntary ENERGY STAR® program; (2) investments by the U.S. Department of Defense and others in ICT-enabled energy efficiency and clean energy innovations; and (3) participation in or working agreements with organizations such as The Green Grid, Save Energy Now, Climate Savers Computing Initiative, Data Center Dynamics and other such initiatives that develop and promote recommendations on industry best methods and practices.
- ITI recommends that the CEC focus its finite resources on item (3) above, , and especially on the high rewards potential of data center and server efficiencies being explored and promoted via The Green Grid (TGG).
 - The Commission should work with TGG and the utility industry to design an aggressive training, education and incentive program to drive meaningful transformation to virtualized, and thermal managed data centers in California.
- ITI strongly recommends against CEC regulatory activity at this time on either client computers or servers.
- Should the CEC decide to proceed with regulations, ITI recommends that it adhere to the “Principles for Aligning Energy Efficiency Regulations for ICT Products” officially endorsed by the U.S. and 19 other governments of the Asia-Pacific Economic Cooperative (APEC) at their meetings held in San Francisco this September.
 - The 2nd Principle emphasizes the critical importance of ensuring that energy efficiency programs for ICT products are based on accurate data and sound analysis. ITI has concerns that some of recommendations presented at the CEC’s September workshop do not meet this threshold.

ITI recommends that the Committee consider adopting efforts to encourage the uptake of ICT power management and virtualization technologies in ICT operations. Given the fact that current server and computer systems offer power management and virtualization capabilities, the energy

efficiency commission should consider programs to promote the adoption of these systems in California data center operations in lieu of setting energy efficiency requirements for servers, as this approach may deliver a higher, immediate energy use reductions. The commission, working with the utility and other stakeholders engaged in the committee scoping project, can develop outreach and incentive programs to drive full deployment of these power management capabilities which in turn can significantly reduce data center and computer energy consumption in the State of California.

Should the Committee chose to pursue computer and server energy efficiency requirements, ITI recommends that the CEC, the ICT industry and key stakeholders work together to focus the ongoing investigation of additional energy efficiency opportunities within specific product categories, with special emphasis on avoiding potential adverse impacts to innovation and current product energy efficiency trends. Given the pace of innovation in the ICT industry, configuration variability, technology complexity and usage models, we advise – and stand ready to assist – the CEC in investigating opportunities to include:

- a narrow, targeted product category focus
- usage models and their impact (e.g., data center over-provisioning and underutilization), and
- an open, and transparent market assessment of the current status of the California ICT energy efficiency landscape.

We believe that, such an analysis will provide the CEC with the tools it needs to understand ICT energy efficiency opportunity and policy options. Any CEC action must ensure it does not limit innovation, and availability of energy efficiency solutions demanded by California consumer.

Thank you for the opportunity to comment on the rulemaking. We would be happy to respond to any questions or provide additional information in support of our views.

Sincerely,

Ken J. Salaets
Director